GYM WEBSITE

A NTCC Report submitted

in partial fulfilment for the Degree of

B.Tech

in

Computer Science & Engineering

by

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pursued in

Department of Amity School of Engineering & Technology / ASET

Amity University Patna

To

AMITY SCHOOL OF ENGINEERING AND TECHNOLOGY

PATNA

Nov, 2025

CERTIFICATE

This is to certify that the project report entitled Gym Website submitted by Rajnandan Prasad to the Amity School of Engineering and Technology, Patna, in partial fulfilment for the award of the degree of B. Tech in Computer Science & Engineering is a *bona fide* record of project work carried out by him . The contents of this report, in full or in parts, have not been submitted to any other Institution or University for the award of any degree or diploma.

Signature

Faculty Guide Name: Dr. Abhishek Anand

Department: ASET

Date: _____


C.ID: d0af241
CodSoft
CERTIFICATE
OF COMPLETION
PROUDLY PRESENTED TO
Rajnandan Prasad
has successfully completed 4 weeks of a virtual internship program in
Web Development
with wonderful remarks at CODSOFT from 20/06/2025 to 20/07/2025.
We were truly amazed by his/her showcased skills and invaluable contributions to the tasks and projects throughout the internship.
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Date:23/07/2025

Acknowledgement

I would like to express my sincere gratitude to CodSoft for giving me the opportunity to participate in their Web Development Internship. Working on real-world projects helped me enhance my technical skills and gain hands-on experience with modern technologies such as Next.js, TypeScript, and Tailwind CSS. I am also thankful to my mentors and coordinators for their continuous guidance, support, and valuable feedback throughout the project.

I extend my heartfelt thanks to the Amity School of Engineering and Technology (ASET), Amity University Patna, for providing the academic support and resources needed to complete this work. Lastly, I am deeply grateful to my family and friends for their constant motivation and encouragement during the entire project development.

Rajnandan Prasad

Company Profile

CodSoft is a modern, innovation-driven IT training and internship organization committed to empowering students and young professionals with industry-oriented technical skills. The company focuses on practical learning, real-world applications, and hands-on project experience to prepare learners for the rapidly evolving technology landscape.

With a strong emphasis on experiential learning, CodSoft provides structured programs that blend theoretical concepts with practical exposure, helping learners gain confidence, develop problem-solving abilities, and become job-ready in highly demanding fields such as Web Development, Artificial Intelligence, Machine Learning, Data Science, Cybersecurity, Cloud Computing, and many more.

During the **Web Development Internship**, CodSoft provided a clear and progressive roadmap consisting of weekly assignments, hands-on tasks, and real-time project challenges. This structured approach helped in developing the **Gym Website Project**, offering exposure to modern frameworks, responsive design techniques, performance optimization, and professional UI/UX principles.

The internship not only strengthened technical skills but also enhanced the ability to work independently, solve problems efficiently, and understand the end-to-end process of building a complete industry-standard web application.

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1. Introduction

The Gym Website is a fully responsive, modern, and user-friendly web application developed using cutting-edge technologies including Next.js, TypeScript, Tailwind CSS, and Framer Motion. The platform is designed to provide a complete digital fitness experience where users can explore gym services, check membership plans, browse workout programs, shop fitness products, and learn more about the brand—all through an interactive and visually appealing interface.

With fitness awareness growing rapidly and people seeking convenience through digital platforms, gyms today require a strong and effective online presence. This website fulfills that requirement by offering a seamless, informative, and engaging platform equipped with:

- A professional and visually appealing UI with modern design aesthetics
- Smooth navigation ensuring a comfortable user journey
- A dedicated fitness shop offering gym essentials and products
- Detailed membership plans with transparent pricing and benefits
- Fully responsive layouts optimized for mobile, tablet, and desktop
- Fast performance powered by Next.js SSR/SSG features
- Interactive animations using Framer Motion for better engagement
- Well-organized sections such as About Us, Classes, Services, Contact, FAQs, and Testimonials
- Product filtering and search functionality for improved user convenience
- Dark theme UI to match the aesthetics of modern fitness brands
- High-quality images, icons, and components to create a premium brand experience

Additionally, the website focuses on delivering a clean structure and user-centric design that reflects the fitness brand's personality. The combination of modern technologies ensures high performance, security, minimal loading time, and easy scalability for future expansions such as:

- Online booking systems
- Personalized user dashboards
- Trainer profiles
- Workout libraries
- Payment gateway integration

2. Learning Outcome

During the development of this Gym Website project, a wide range of technical and professional skills were gained. The project provided hands-on experience with modern web technologies and enhanced both front-end development knowledge and practical problem-solving abilities. Key learning outcomes include:

1. **Building dynamic and fast websites using the Next.js App Router**, including file-based routing, server components, page optimization, and improved performance strategies.
2. **Writing clean, modular, and strongly typed code using TypeScript**, ensuring fewer bugs, better maintainability, and improved developer experience.
3. **Implementing fully responsive and mobile-friendly UI using Tailwind CSS**, learning utility-first styling, custom classes, responsive breakpoints, and modern design principles.
4. **Using Framer Motion for smooth, engaging animations**, including fade effects, motion transitions, hover interactions, and page animations to improve user experience.
5. **Creating reusable React components**, such as cards, buttons, product sections, layout sections, hero banners, and navigation components to ensure scalability and consistency.
6. **Managing project structure effectively**, following industry-standard folder organization, separating components, hooks, assets, and utilities for cleaner code management.
7. **Adding and managing products in the Shop module**, including product filtering, category management, search functionality, and UI integration for e-commerce-like experience.
8. **Working with real-world UI/UX principles**, focusing on hierarchy, spacing, typography, color consistency, and modern fitness-themed design.
9. **Improving debugging and problem-solving skills**, using browser dev tools, console logs, and iterative testing to fix layout issues and performance bottlenecks.
10. **Enhancing collaboration and development workflow**, understanding Git version control, deployment basics, and how to test features across different devices.
11. **Understanding component reusability and state management concepts**, improving code efficiency and reducing redundancy.
12. **Learning modern best practices in web development**, such as SEO optimization, accessibility considerations, page performance enhancement, and clean coding techniques.

3. Modules Covered

The development of this Gym Website project involved working extensively with the **Next.js framework**, which provided a strong foundation for building fast, optimized, and scalable web applications. Concepts such as file-based routing, server and client components, layouts, dynamic routes, and performance optimizations like SSR and SSG were practiced throughout the project, enabling a deeper understanding of modern full-stack development workflows.

A significant module covered was **TypeScript**, where both basic and advanced typing concepts were learned. Working with interfaces, generics, union types, and typed props helped in writing cleaner, safer, and more maintainable code. This improved the overall reliability of the application and strengthened confidence in strongly typed programming.

The project also focused heavily on **React component development**, including functional components, state management, hooks, and reusable UI elements. Learning how to divide the website into structured, modular, and maintainable components contributed to cleaner architecture and efficient development practices.

For the UI design, **Tailwind CSS** played a major role. Utility-first classes, responsive breakpoints, Flexbox and Grid layouts, and custom styling approaches were applied to build a visually appealing and responsive interface. The project also incorporated a fully modern **dark-themed UI**, ensuring aesthetic consistency with the gym and fitness branding.

Animations were implemented using **Framer Motion**, adding smooth transitions, hover effects, page animations, and interactive motion elements to enhance user engagement. These animations contributed to a seamless and dynamic browsing experience while maintaining professional UI standards.

A dedicated **Shop Module** was also created as part of the project. This included product cards, add-to-cart functionality, a cart icon with item count, category filtering, and an animated product display section. This module provided experience in building e-commerce-like features and managing product flows within a web application.

The project covered essential concepts of **routing and navigation**, using the Next.js App Router for nested routes, shared layouts, and page organization. This helped in structuring the website efficiently and creating smooth navigation patterns for end-users.

Finally, the project included **deployment basics**, where the website was successfully prepared and deployed using modern deployment platforms like Vercel. Concepts such as environment configuration, production builds, and performance checks were understood during this phase.

4. Assignments

During the development of the Gym Website, I worked extensively on **designing UI components in React**, focusing on creating clean, reusable, and modular components that could be efficiently used across multiple sections of the website. This included building components like navigation bars, hero sections, cards, product grids, buttons, testimonials, and layout sections that maintained visual consistency throughout the application.

I also created important pages such as **Home, Membership, Classes, About, and Shop**, each designed with a user-friendly layout and structured content flow. Every page was crafted to enhance user engagement by providing easy access to information, clear navigation, and visually appealing content presentation. These pages together formed the core of the website's structure.

To ensure the site worked smoothly across all devices, I implemented **responsive layouts using Tailwind CSS**. By utilizing Tailwind's utility-first classes, responsive breakpoints, flex/grid systems, spacing, and custom themes, I ensured that every page adapted perfectly to mobile, tablet, and desktop screens without compromising quality or readability.

For visual engagement and modern UI feel, I added **animations using Framer Motion**, including smooth transitions, hover effects, scroll animations, and dynamic component animations. These animations improved the overall user experience by making the interface feel more interactive, responsive, and professional.

The project also included implementing a functional **cart system for the shop module**, which allowed users to add items, view cart updates in real-time, and manage their selections. This involved building product cards, maintaining state for cart items, updating the cart icon count, and ensuring product data displayed correctly throughout the shopping experience.

Additionally, I learned to structure the project effectively, maintain clean folder organization, and apply best practices for naming conventions and component reuse. I also worked on optimizing performance, handling image components, and improving accessibility features to meet modern web standards.

5. Project Overview

The Gym Website project is a modern, professional platform created to provide users with complete fitness-related information along with an integrated shopping experience.

It includes major sections such as:

- Home page with hero banner and call-to-action
- Classes page
- Membership and Pricing section
- About page describing the gym's mission
- Shop page for products
- Cart system and checkout flow

Why We Need This Website

- A gym website is essential because:
- It helps attract more members through online presence.
- Users can easily learn about membership plans and gym facilities.
- It provides 24/7 access to information.
- It offers convenience in exploring fitness classes and schedules.
- The integrated shop allows selling gym merchandise and supplements online.
- It builds trust and brand identity with a professional online platform.

Website Workflow

Below is the workflow of the complete system:

1. User Visits Website

- Lands on Home Page
- Sees hero section, CTA buttons (Join, Free Pass)

2. Navigation Through Pages

- **Classes:** Explore different fitness programs
- **Membership:** View one-day, monthly, and yearly plans
- **About:** Learn about the gym, trainers, mission
- **Shop:** Browse gym products

3. Shop Module Workflow

- User selects a product
- User clicks **Add to Cart**
- Cart icon updates dynamically
- User can review items and go to checkout

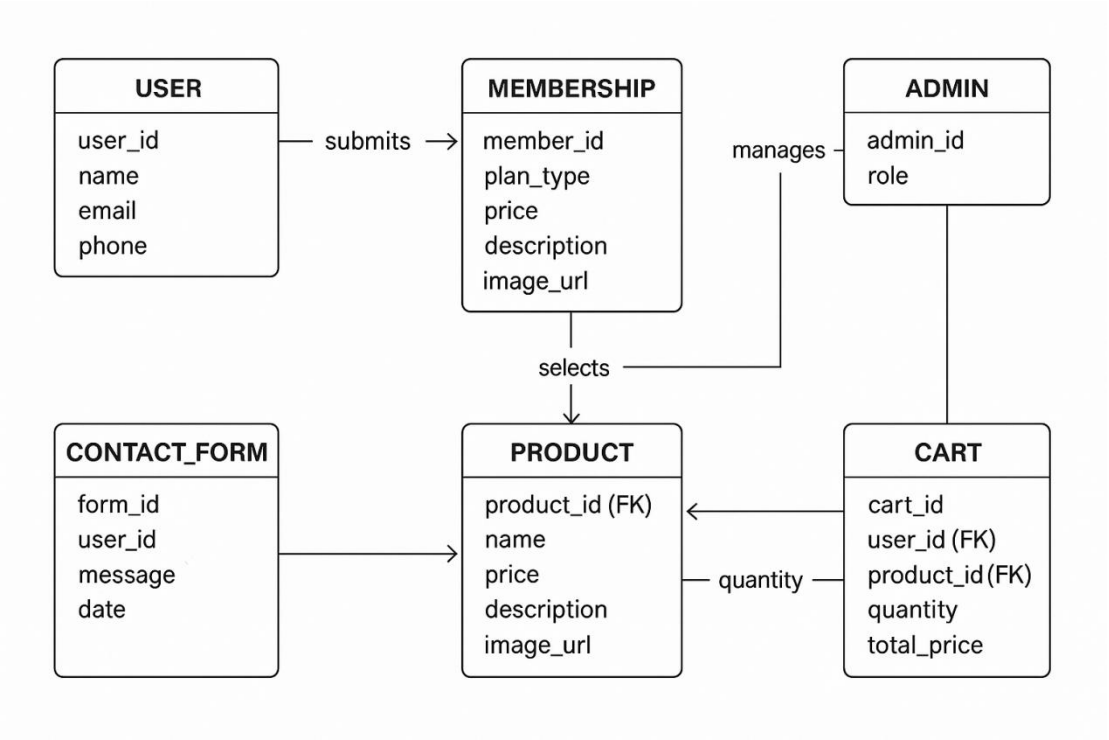
4. Join / Free Pass Flow

- User fills a form for membership or trial pass
- Form is submitted using **EmailJS**
- Gym receives the user details

5. Admin/Product Management (Development Side)

- Products are defined through reusable components
- Website is fully responsive and mobile-friendly

ER Diagram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6. Project Screenshots

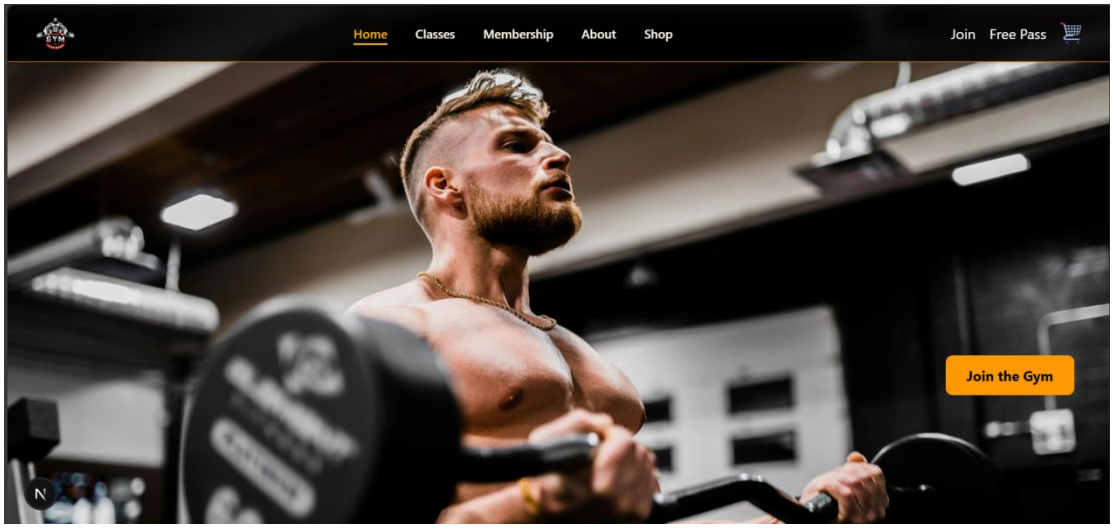

Figure 1: Home Page

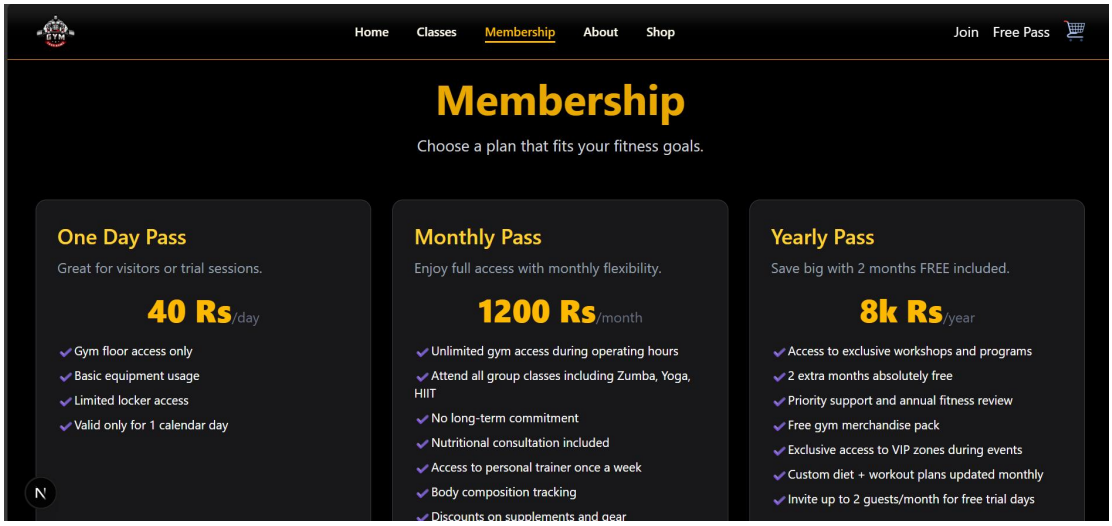

Figure 2: Membership

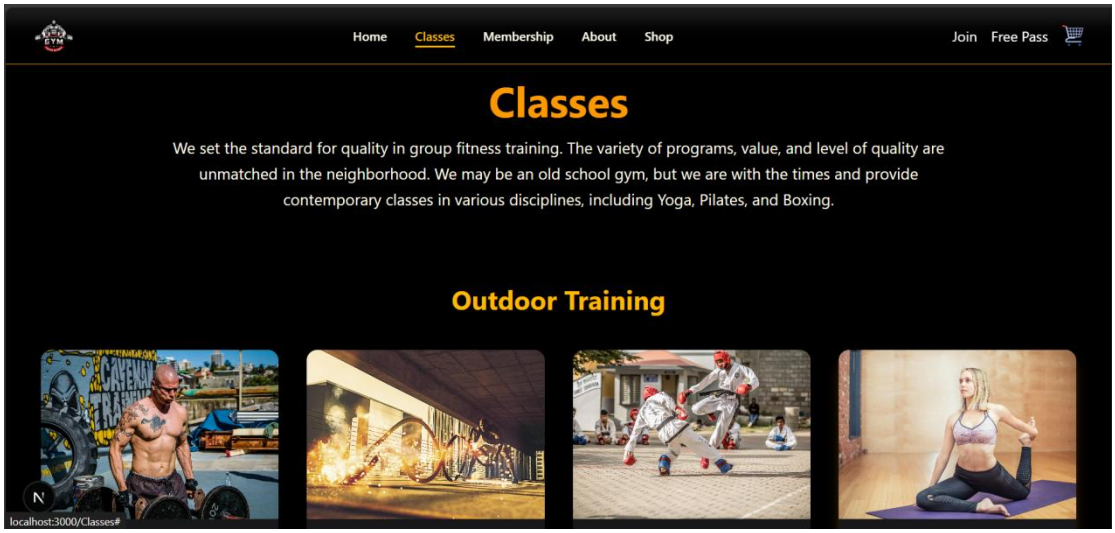

Figure 3: Classes Available

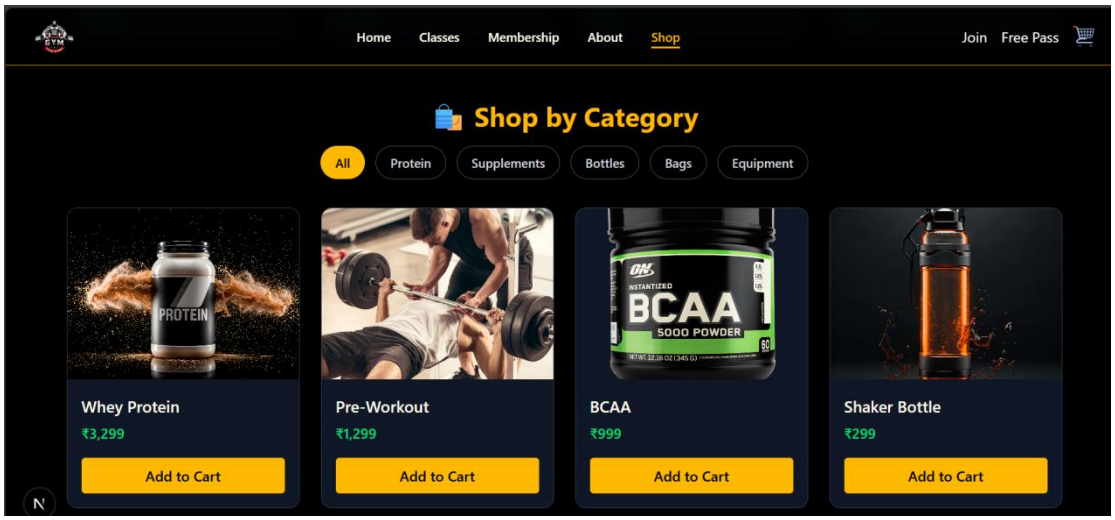

Figure 4: Gym Shop

7. Challenges Faced and Solutions Implemented

7.1 Responsive Design Issues

Challenge: Components breaking on smaller screens.
Solution: Used Tailwind CSS responsive utilities and flex/grid systems.

7.2 Handling Animations

Challenge: Smooth animations without affecting performance.
Solution: Used Framer Motion optimized animation hooks.

7.3 TypeScript Errors

Challenge: Type mismatches while passing props.
Solution: Created proper interface definitions.

7.4 Shop Module Cart Management

Challenge: Adding products dynamically and maintaining cart count.
Solution: Implemented global state with reusable components.

8. Conclusion

The development of the **Gym Website using Next.js, TypeScript, and Tailwind CSS** represents a successful implementation of modern web technologies to solve a real-world problem in the fitness industry. This project demonstrates how digital solutions can enhance accessibility, improve user convenience, and strengthen the overall service experience for both gym owners and fitness enthusiasts.

Throughout the project, I explored a range of advanced concepts, including responsive UI design, modular component development, animation handling with Framer Motion, and structured form submission using EmailJS. These elements not only enhanced the performance and usability of the website but also allowed me to understand how professional websites are designed, optimized, and deployed in real scenarios.

This project reinforced the importance of **Next.js** for fast rendering and SEO optimization, **TypeScript** for type-safe and scalable code, and **Tailwind CSS** for creating consistent, modern, and highly responsive layouts. The practical challenges faced—such as ensuring device responsiveness, product structuring for the shop section, implementing dynamic routing, and maintaining code quality—were instrumental in strengthening my technical problem-solving and debugging skills.

Apart from technical achievements, the project offers immense practical value. A gym website is crucial in today's digital world as it allows people to explore membership plans, understand fitness programs, view schedules, and even shop for fitness-related products without visiting physically. It increases trust, visibility, and reach for the gym while offering convenience and clarity to users. The integrated shop section also adds a new revenue stream for gym businesses.

This project also opens the door to future enhancements such as:

- Online membership registration with secure payment gateways
- A personalized user dashboard
- Trainer profiles and class booking systems
- AI-driven workout recommendations
- Chatbots and real-time support systems

In conclusion, this project served as a comprehensive learning experience that improved my technical expertise, enhanced my understanding of real-world project workflows, and deepened my appreciation for clean UI/UX design practices. The skills I gained will strongly support my academic pursuits and future professional career in software development. The Gym Website stands as a solid foundation for further development and a strong demonstration of my abilities in modern web technologies.

9. References

1. Next.js Documentation

https://nextjs.org/docs
(Used for routing, server components, API routes, and optimization)

2. React Official Documentation

https://react.dev/
(Used to build UI components across the website)

3. Tailwind CSS Documentation

https://tailwindcss.com/docs
(Used for utility-first styling, responsiveness, and animations)

4. TypeScript Documentation

https://www.typescriptlang.org/docs/
(Used for type safety, interfaces, and error-free component development)

5. Razorpay Developer Docs

https://razorpay.com/docs/
(Used for integrating secure online payments and checkout functionality)

6. ShadCN UI Documentation

https://ui.shadcn.com/
(Used for reusable UI components like buttons, cards, and forms)

7. Framer Motion Documentation

https://www.framer.com/motion/
(Used for page transitions, animations, and interactive UI effects)